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# McNay Sheep Flock Production Parameters

Daniel G. Morrical
*Iowa State University*, morrical@iastate.edu

L. James Secor
*Iowa State University*

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**Abstract**
The McNay ewe flock was moved from Beaconsfield to the McNay Research Farm in the fall of 1989. The flock has served as a resource for applied management and nutrition studies along with disease research. The flock is also used as a resource for producer education and to demonstrate proper midwestern production systems that can be applied to Iowa operations.

**Keywords**
Animal Science

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Daniel G. Morrical, professor
Department of Animal Science
Jim Secor, superintendent

## Introduction

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Genetically, the flock is composed of a prolific cross of white-faced females. Polypay and crossbred East Fresian and Romanov rams are rotationally used on the ewe flock. The Polypay is fast becoming the standard commercial ewe type in the Midwest. It has genetic evaluations via the National Sheep Improvement Program, which allows maternal ram selections that complement the crossbred rams. Romanov is currently the most prolific genetic resource available in the United States with lambing rates of almost four lambs/ewe lambing. Research data indicates that lambing rate increases by 2% for every 1% Romanov in the ewe base. Therefore, with a prolific 30% breeding, we expect the McNay flock to produce six tenths of lamb more/ewe lambing. The East Fresian is included in the rotation to increase milk production so that the majority of the ewes with triplet or quad births are able to raise three lambs.

The production cycle starts with breeding on September 10 each year for five weeks. Ewes are flushed with one pound of grain and exposed to teaser rams prior to breeding. Replacement ewe lambs are maintained as a separate management group but bred at the same time and lamb at eleven to thirteen months of age.

A sector scanner ultrasound technician is hired to determine fetal counts at 45 days post ram removal. Open females are culled. Ewes are grouped and fed according to fetal counts and body condition in late gestation. Example rations are listed in Table 1. Lactating mature ewes are also fed according to the number of lambs nursed. The ewe lambs are kept separate during lactating.

## Results and Discussion

The 2006 lambing season at McNay was very successful. One hundred and seventy-six ewes dropped 389 lambs for a lambing rate of 2.21/ewe. The number born and reared by age group is listed in Table 2. Thirty-five lambs did not survive to weaning resulting in a very low preweaning mortality rate of 9%. The facility that houses the ewe flock does not contain supplemental heat and ewes are on their own from 10 p.m. to 6 a.m. Another 34 lambs were raised artificially on cold lamb milk replacer. Ewes weaned 1.81 lambs/ewe lambing with an average weight of 44 lb at 56 days of age. This weaning weight was less than previous years due to weaning two weeks earlier. Sixty percent of the ewes that delivered live triplets or quads successfully raised at least three lambs in 2006. Allowing ewes to rear three lambs reduced the number of orphans by 30 head. This level of performance is 25% above the state average lamb crop. This flock demonstrates that high lambing rates can be accomplished with management and genetics.

**Table 1. McNay ewe rations fed in the 2005–2006 productions cycle[a].**

| Late gestation rations | Alfalfa hay | Corn | Protein supp.[b] |
|---|---|---|---|
| Mature ewes, singles | 4.0 | .75 | |
| Mature ewes, twins | 4.0 | 1.30 | |
| Mature ewes, triplet plus | 3.5 | 2.00 | |
| | | | |
| Ewe lambs, singles | 2.0 | 1.50 | |
| Ewe lambs, twins | 2.0 | 2.00 | |
| | | | |
| Lactation rations | | | |
| Mature ewes, singles | 5.5 | .50 | |
| Mature ewes, twins | 5.5 | 2.00 | |
| Mature ewes, triplet plus | 5.5 | 2.50 | |
| | | | |
| Ewe lambs, singles | 3.5 | 1.50 | |
| Ewe lambs, twins | 3.5 | 2.00 | .2 |

[a]Alfalfa hay was third cutting with 90% dry matter, 19.9% crude protein, 65% TDN, .99% Ca, and .4% P.

[b]Protein supplement is a custom mix that contained 45% crude protein, 68% TDN, 4.9% Ca, and .9% P.

**Table 2. McNay lambing performance by age of ewe.**

| Ewe age | No. ewes | No. born | No. weaned |
|---|---|---|---|
| Ewe lambs | 44 | 1.6 | 1.5 |
| Yearlings | 35 | 2.3 | 1.9 |
| Two year olds | 17 | 2.2 | 1.9 |
| Three year olds | 10 | 3.0 | 1.3 |
| Four year olds | 10 | 2.9 | 2.2 |
| Five year olds | 19 | 2.5 | 1.9 |
| Six year olds and older | 41 | 2.4 | 1.8 |
| | | | |
| Overall numbers | 176 | 2.2 | 1.8 |